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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
SALVATORE, LYNDA	

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 04/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/019,028	SON ET AL.	
	Examiner	Art Unit	
	Lynda M Salvatore	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on 12/03/04.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-32 is/are pending in the application.

4a) Of the above claim(s) 18-32 is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-17 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 1-17 filed 12/03/03 is acknowledged.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1,3,7 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Mizuno, US 5,492,589.

The patent issued to Mizuno teaches a decorative laminated sheet comprising in the following order, a protective layer, a hard coat layer, a polyethylene terephthalate (PET) layer, an acrylic based adhesive layer, and a thermoplastic polyvinyl chloride (PVC) layer (Abstract, Figure 1, and Column 3, 15-18). With regard to claim 3, Mizuno teaches a PET film having a thickness range from 25 to 100 microns (Column 4, 35-37). With regard to claims 7 and 8, Mizuno teaches laminating the decorative sheet to a woody base material such as middle density fiber board (MDF) (Column 5, 31-47).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuno, US 5,492,589 as applied to claim 1 above, and further in view of Brew, US 4,888,233.

Mizuno fails to teach coating the PET film with a primer, however, the patent issued to Brew teaches fire resistant composite material comprising a polymeric substrate coated with a primer material before the application of a second coating material (Column 3, 3-18). Suitable primers include copolymers of ethylene with a vinyl monomer, such as ethylene with vinyl acetate (Column 2, 57-65). Brew teaches thin coating the surface of the polymeric substrate with the primer in an amount ranging from 1 g/m^2 to 5 g/m^2 (Column 3, 3-6). Suitable polymeric substrate materials include PET (Column 4, 10-19). With regard to the limitation of coating both surfaces of the PET film layer with the primer, Brew teaches in primer coating a thermoplastic polymeric film of polyethyer ketone on both sides (Column 5, 25-41). Though, Brew primer coats both sides of a non-PET film, such a disclosure is sufficient to evidence coating both sides of a thermoplastic substrate (Column 5, 25-41). Brew does not specifically teach the purpose of primer coating the thermoplastic polymeric substrate, however, it is known in the art primer coatings facilitate the subsequent adhesion of additional material layers to the surface. Therefore, motivated by the desire to improve the adhesion of additional material layers to the surface of the PET substrate it would have been obvious to one having ordinary skill in the art at the time the invention was made to coat the PET film of Mizuno with the primer coatings taught by Brew.

6. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuno, US 5,492,589 as applied to claim 1 above, and further in view of NIPPON DECORAX. JP 04-101864 A.

Mizuno fails to teach polyvinyl sheet comprising fillers and fibers, however the published Japanese patent abstract teaches laminated decorative board comprising a polyvinyl chloride resin layer comprising non-woven glass fiber cloth and fillers such as calcium carbonate, clay or wollastonite (Abstract). The laminated board provides high heat and abrasion resistance as well as good flexibility, cushioning, and sound-proof activity (Abstract). Therefore, motivated by the high heat and abrasion resistance as well as good flexibility, cushioning, and sound-proof activity properties, it would have been obvious one having ordinary skill in the art at the time the invention was made to employ the polyvinyl chloride resin layer taught in the published Japanese patent abstract of NIPPON DECORAX in the invention of Mizuno.

With regard to the limitation of the amount of filler, though no specific amount of filler is taught it would have been obvious to one having ordinary skill in the art to optimize the amount of filler used as function of said resistance and activity properties. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

With regard to the limitations pertaining to the manufacture of the polyvinyl chloride resin layer set forth in claim 5, the presence of process limitations on product claims, in which the produce does not otherwise patentably distinguish over prior art, cannot impart patentability to the product. *In re Stephens*, 145 USPQ 656. Specifically, it is the position of the Examiner that the prior art polyvinyl chloride resin layer appears to be the same or similar to that of the

claimed polyvinyl chloride resin layer, although produced by a different process. Accordingly, the burden shifts to Applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289 As such, the process limitations defining the polyvinyl chloride layer will not be given patentable weight at this time.

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuno, US 5,492,589 as applied to claim 8 above, and further in view MITSUBISHI KASEI VINYL, JP 09-151596.

Mizuno fails to teach a cork balance layer, however, the published Japanese abstract teaches a flooring material having good durability comprising a cork layer (Abstract). The reference also discloses that cork matter has good durability, workability and cushioning ability. Therefore, motivated by the desire to provide a laminate suitable for use a flooring tile it would have been obvious to one having ordinary skill in the art at the time the invention was made to laminate the decorative laminate of Mizuno to the cork layer taught by the published Japanese abstract of MITSUBISHI KASEI VINYL.

With regard to the limitations pertaining to the manufacture of cork balance layer as set forth in claim 9, the presence of process limitations on product claims, in which the produce does not otherwise patentably distinguish over prior art, cannot impart patentability to the product. *In re Stephens*, 145 USPQ 656. It is the position of the Examiner that the prior art cork balance layer appears to be the same or similar to that of the instant cork art cork layer, although produced by a different process. Accordingly, the burden shifts to Applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art

product. *In re Marosi*, 218 USPQ 289 As such, the process limitations defining the wooden balance layer will not be given patentable weight at this time.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuno, US 5,492,589 as applied to claim 8 above, and further in view MATSUSHITA, JP 10-339016.

Mizuno fails to teach a wooden powder layer, however the published Japanese abstract teaches a decorative composite material having a reinforcing layer, which may comprise wooden powder, plastic or medium density fiber board. As such, it is the position of the Examiner that though, Mizuno fails to teach a wooden powder layer, such a layer is an obvious variant to medium density fiber board. Thus, motivated by the desire to provide a decorative laminate with sufficient strength and durability it would have been obvious to one having ordinary skill in the art to select a known variant to medium density fiber board in the decorative laminate of Mizuno, such as the wooden powder layer taught by MATSUSHITA.

With regard to the limitations pertaining to the manufacture of the wooden powder balance layer set forth, the presence of process limitations on product claims, in which the produce does not otherwise patentably distinguish over prior art, cannot impart patentability to the product. *In re Stephens*, 145 USPQ 656. It is the position of the Examiner that the prior art wooden powder balance layer appears to be the same or similar to that of the instant wooden powder balance layer, although produced by a different process. Accordingly, the burden shifts to Applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289 As such, the process limitations defining the wooden balance layer will not be given patentable weight at this time.

9. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuno, US 5,492,589 as applied to claim 8 above, and further in view Goeden, US 4,746,560.

Mizuno fails to teach a fiber layer comprising a woven or non-woven of polyester, polypropylene or glass, however, the patent issued to Goeden teaches decorative panel having a layer comprising a plurality of fiber glass mats impregnated with a polyester resin (Abstract). Goeden teaches that the resulting decorative composites exhibits high impact and wear resistance and is suitable for flooring or walls (Column 1, 5-11 and Column 2, 30-35). Therefore, motivated by the desire to provide a decorative panel having high impact and wear resistance, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a the glass fiber base mats taught by Goeden in the decorative laminate of Mizuno.

With regard to the recited thickness limitations, the combination of prior art fails to teach a thickness range, however, it would have been obvious to one having ordinary skill in the art to optimize thickness of the glass fiber mats as a function of said resistance properties and intended final use. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

10. Claims 12,13,15,16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuno, US 5,492,589.

The patent issued to Mizuno teaches a decorative laminated sheet comprising in the following order, a protective layer, a hard coat layer, a polyethylene terephthalate (PET) layer, an acrylic based adhesive layer, and a thermoplastic polyvinyl chloride (PVC) layer (Abstract, Figure 1, Column 5, 512, and Column 3, 15-18). With regard to claim 3, Mizuno teaches a PET

film having a thickness range from 25 to 100 microns (Column 4, 35-37). With regard to claims 7 and 8, Mizuno teaches laminating the decorative sheet to a middle density fiber board (MDF) (Column 5, 31-47). With regard to the material limitations recited in claim 13, Mizuno teaches coating the PET film with a hard coat of polyurethane (Column 4, 63-66). With regard to the limitation of having a polyvinyl chloride resin intermediate and substrate layer, the Examiner interpret said limitations to mean that the two PVC layers are adjacent to one another. As such, the since the PVC material seems identical in both layers, the Examiner fails to see a difference in having a single PVC layer instead of two PVC layers. Thus, absent limitations setting forth the difference between (i.e., structural and/or chemical) the two PVC layers, it is the position of the Examiner that the single PVC layer meets the limitation of having an intermediate and a substrate layer. With regard to the PVC substrate thickness limitation, Mizuno teaches a range from 50 to 500 μm (Column 3, 58-60).

With regard to the limitations pertaining to the manufacture of the polyvinyl chloride resin layer set forth in claim 15, the presence of process limitations on product claims, in which the produce does not otherwise patentably distinguish over prior art, cannot impart patentability to the product. *In re Stephens*, 145 USPQ 656. Specifically, it is the position of the Examiner that the prior art polyvinyl chloride resin layer appears to be the same or similar to that of the claimed polyvinyl chloride resin layer, although produced by a different process. Accordingly, the burden shifts to Applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289 As such, the process limitations defining the polyvinyl chloride layer will not be given patentable weight at this time.

With regard to the adhesive layer and light back layer limitations recited in claim 12, Mizuno teaches laminating the decorative sheet to a middle density fiber board (MDF) (Column 5, 31-47). As such, it is the position of the Examiner that it would have been obvious to provide an adhesive between the decorative composite and MDF to facilitate lamination.

With regard to the limitations pertaining to the manufacture of adhesive layer set forth in claim 17, the presence of process limitations on product claims, in which the produce does not otherwise patentably distinguish over prior art, cannot impart patentability to the product. *In re Stephens*, 145 USPQ 656. Specifically, it is the position of the Examiner that the prior art adhesive layer appears to be the same or similar to that of the claimed adhesive layer, although produced by a different process. Accordingly, the burden shifts to Applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289 As such, the process limitations defining the adhesive layer will not be given patentable weight at this time.

With regard to the recited total thickness limitations set forth in claim 16, Mizuno fails to teach the total thickness range, however, it would have been obvious to one having ordinary skill in the art to optimize total thickness of the decorative panel as a function of said resistance properties and intended final use. It has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuno, US 5,492,589 in view of Takahashi et al., US 5,928,778.

Mizuno fails to teach having a hard coat layer further comprising acryl or urethane based beads, however the patent issued to Takahashi et al., teaches a decorative laminate comprising an abrasion resistant coating having spherical particles (Abstract). Takahashi et al., teaches that the spherical particles imparts excellent abrasion resistance (Abstract). Suitable spherical particle forming materials include beads of acrylic resin (Column 4, 31-36). The average particle size ranges from 3 to 50 micrometers (Column 3, 40-45). Therefore, motivated to provide a decorative laminate having an abrasion resistant surface, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the hard coat polyurethane layer taught by Mizuno with the acrylic resin beads taught by Takahashi et al.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 571-272-1482. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1482. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

March 18, 2004
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CHERYL A. JUSKA
PRIMARY EXAMINER